

## ONLINE SHIPPING EXCHANGE

### Related Applications

5 This application claims priority on, and hereby incorporates by reference, U.S. Provisional Application, Serial No. 60/154,773, titled Online Shipping Exchange and filed September 20, 1999.

### Field of the Invention

10 The present invention generally relates to maritime commodity shipping. More specifically, the present invention relates to an online shipping exchange and business methods for connecting shippers and transportation service providers.

### Background of the Invention

15 In the present worldwide commodity shipping market, the service providers include hundreds of ocean carriers and tens of thousands of intermediaries, including freight forwarders and non-vessel-operating-common-carriers (NVOCCs). These service providers must compete fiercely to identify and keep in touch with potential shippers (*i.e.*, importers, exporters, shipping associations, etc.). Many clients are developed solely based on connections and personal relationships. On the other hand, many shippers do not have ready and easy access to most service providers. These shippers must struggle to identify enough service providers in order to have a competitive base from which to choose a service provider.

20 Commodity shipping markets worldwide are constantly shifting towards more open competitive and less regulated environments. For example, the Ocean Shipping Reform Act (OSRA), which became effective May 1, 1999 in the U.S.A., is an important legislative step towards a more deregulated environment. One of its key elements includes a stipulation that cancels the obligation to publicly file with the regulatory agency the negotiated rates for service contracts (service contracts are agreements generally between service providers and shippers covering repeated shipments over a certain term). The direct consequence of this is the creation of a new competitive environment for the negotiation of service contract rates in the U.S.A.

30 The introduction of the Internet and the World-Wide-Web ("WWW") into the business world provides a platform that is ideally suited for taking advantage of

this newly competitive environment. However, the commodity shipping market is lacking a central system that fully takes advantage of the Internet and the WWW to provide an adequate business-to-business marketplace for shippers and service providers. No system or method that enables shippers and service providers to communicate and fully evaluate each other's proposals. No system or method exists which enables a service provider to evaluate specific shipments or service contracts based on the commodity shipped, the shipper's booking frequency, the trade route and/or other shipment specifications made by the shipper. Likewise, no system or method exists which enables a shipper to evaluate a service provider's quotations based on rate, services included in the rate ("price components"), transit time or logistics solution, the service provider's quality rating or the service provider's brand recognition. Moreover, no system or method exists which provides Account Managers that monitor the business-to-business activity between shippers and service providers and support market liquidity by actively inviting and soliciting quotations from service providers.

## Summary of the Invention

The present invention is a system and method for creating a business-to-business exchange for shipments. An Online Shipping Exchange (“OSE”) connects shippers and service providers through the system and according to the business method of the present invention. The OSE enables shippers to auction their shipments, including one-time shipments (both full-container-loads (FCL) and less-than-container loads (LCL)) and long-term relationships through negotiation of rates for service contracts or service agreements. Likewise, the OSE enables service providers to evaluate specific shipments and to provide bids on these shipments

The OSE enables a service provider to evaluate specific requested shipping services (e.g., shipments or service contracts) based on the commodity shipped, the trade route, the type of equipment required, the shipper's booking frequency and/or other shipment specifications made by the shipper. Moreover, the OSE enables a shipper to evaluate a service provider's quotations based on the rate, price components, transit time or logistics solutions, the service provider's quality rating or the service provider's brand. Additionally, the OSE provides Account Managers

that monitor the business-to-business activity between shippers and service providers and support market liquidity by actively inviting and soliciting quotations from service providers.

5 The OSE provides unique benefits to its participating shippers and service providers. For shippers, it provides significant cost savings derived from competitive service provider bidding. It improves communication for shippers, enabling their requests for quotations to reach many more service providers worldwide at much lower communication costs, and allows shippers to compare rates and logistic solutions from different service providers in a more convenient and consistent way (*i.e.*, more of an “apples to apples” comparison). For service providers, the OSE provides access to many new potential customers with much lower acquisition or business development costs. It provides access to a demand stream on trade routes with too much capacity. It allows service providers to filter shipper requests and target a customer mix and commodity type that increases profitability, as compared to the present limited customer mix that is driven by personal relationships. Likewise, it reduces significant variable direct sales costs through immediate access to the demand available on the OSE, which is generated by the OSE as opposed to direct costly labor investments in a sales-force.

20 The OSE maintains shipper confidentiality, preventing shippers from determining the shipping costs of other shippers. Likewise, the OSE maintains service provider confidentiality, preventing service providers from determining the names/identity of other service providers bidding for a specific shipment or service contract. It does allow all service providers to compete on a level playing field and to determine the success of their bidding strategies based on bid successes and failures. The OSE allows a service provider to submit additional bids until an auction closes for bidding at a time that the shipper has set in advance or a bid is accepted. Moreover, shippers are free to select any bid as the winning bid (*i.e.*, shippers are not required to select the lowest (in terms of rate) bid).

30 An embodiment of the invention comprises a method of creating a business to business exchange for shipments, the method comprising a shipper specifying shipping requirements, that comprise information that describes a requested shipping service and a commodity to be shipped and initiating an auction for the

requested shipping service as described by the shipping requirements, wherein the auction allows service providers to place bids in an attempt to secure a contract to perform the requested shipping service.

Further, an embodiment of the invention comprises an online shipping exchange comprising a server that hosts the online shipping exchange, comprising a secondary storage device and a connection to a network, wherein the server can be accessed from the network, a user machine, that enables user access to the server, comprising a display, an input device and a connection to the network, wherein the user machine can access the server through the network and a plurality of screens, that are supported by the server and presented on the display, comprising a create-an-auction screen, that enables a first user (e.g. a shipper) to enter shipping requirements to create an auction, wherein shipping requirements comprise information that describes a requested shipping service and the create-an-auction screen comprises sections for entering the shipping requirements, the sections including a commodity section and an auction detail screen, that enables a second user (e.g. service provider) to place a bid on the auction, wherein the auction detail screen includes the shipping requirements for the auction.

Another embodiment comprises a method operative at a server for creating a business to business exchange for shipments, the method comprising displaying a list of auctions for shipping services that are available for bidding, providing information about each of the live auctions, including a commodity being shipped, storing a bid placed on one of the auctions, wherein the bid includes price components and displaying the bid so that a first user may evaluate the bid.

Methods of the present invention may also include storing and displaying booked, won and other historical auctions. These stored auctions may be utilized in evaluating current auctions.

#### **Brief Description of the Figures**

Figure 1A is a diagram illustrating operation of an embodiment of the present invention.

Figure 1B is a block diagram of exemplary hardware components of an embodiment of the present invention.

Figure 2 is a flowchart of a method according to the present invention.

Figure 3 is a flowchart of a method according to the present invention.

Figures 4-7 are site maps for various types of users according to an embodiment of the present invention.

5           Figures 8a-8c illustrate various registration screens according to an embodiment of the present invention.

Figures 9a-9s illustrate embodiments of various screens accessed by shippers using an embodiment of the present invention.

10           Figures 10a-10m illustrate embodiments of various screens accessed by service providers using an embodiment of the present invention.

Figure 11 illustrates an embodiment of a screen accessed by NVOCCs using an embodiment of the present invention.

15           Figures 12a-12e illustrates embodiments of various screens accessed by Account Managers using an embodiment of the present invention.

#### **Detailed Description of the Invention**

20           FIG. 1A is a diagram conceptually illustrating operation of an embodiment consistent with the present invention for creating a business-to-business exchange for maritime container shipments, the Online Shipping Exchange ("OSE") 10. The OSE 10 may be used with a web site 12, which represents one or more applications through which users (shippers, transportation service providers, Account Managers, etc.) can interact in the business-to-business exchange. A user with system 22 may  
25           interact with web site 12 on-line (or otherwise) using a web browser 26 communicating through a network connection such as the Internet 16 or other type of network (e.g. public, private, LAN, wireless, voice, etc.) in order access the OSE 10. Such interaction may include auctions (*i.e.*, requests) for one-time transactions (both full-container-loads (FCLs) and less-than-container-loads (LCLs)) and  
30           volume-based service contracts or service agreements. The user may access the OSE 10, for example, through browsing and navigating to the web-site or through links provided in email messages or elsewhere.

FIG. 1B is a block diagram illustrating exemplary hardware components for implementing the OSE 10 and supporting the business method according to the present invention. System 30 includes a user system 37 having a user machine 38 connected with a network 60 such as the Internet, providing a network connection for participating in the OSE 10. Other user systems, such as user system 56 may also be connected with network 60 for accessing the OSE 10. User system 56, and other user systems, may include the same components as user system 37.

Users at user systems 37 and 56 interact with a server 76 to submit auction requests and otherwise interact with the OSE 10. Server 76 provides and maintains the web site 12 for providing a network connection to the application(s) through which users can interact in the business-to-business exchange. System 30 may also include the ability to access one or more servers 58 in order to obtain content from the World Wide Web, if desired. Only two user systems are shown for illustrative purposes only; system 30 may include many user machines and may be scalable to add or delete user machines to or from the network.

User machine 38 illustrates typical components of a user machine. User machine 38 typically includes a memory 40, a secondary storage device 50, a processor 52, an input device 54, a display device 48, and an output device 46. Memory 40 may include random access memory (RAM) or similar types of memory, and it may store one or more applications 44, and a web browser 42, for execution by processor 52. Secondary storage device 50 may include a hard disk drive, floppy disk drive, CD-ROM drive, or other types of non-volatile data storage. Processor 52 may execute applications or programs stored in memory 40 or secondary storage 50, or received from the Internet or other network 60. Input device 54 may include any device for entering information into machine 38, such as a keyboard, mouse, cursor-control device, touch-screen, microphone, digital camera, video recorder or camcorder. Display device 48 may include any type of device for presenting visual information such as, for example, a computer monitor or flat-screen display. Output device 46 may include any type of device for presenting a hard copy of information, such as a printer, and other types of output devices include speakers or any device for providing information in audio form.

Web browser 42 is used to access the application(s) through the web site 12 and display various web pages through which the user can register with the OSE 10, initiate auctions, specify request bids, submit bids, view pending auctions, view expired auctions, exercise an offer, book an order and otherwise interact with the OSE 10, and examples of those web pages are described below. Examples of web browsers include the Netscape Navigator program and the Microsoft Internet Explorer program. Any web browser, co-browser, or other application capable of retrieving content from a network and displaying pages or screens may be used.

Examples of user machines for interacting with the web site 12 include personal computers, laptop computers, notebook computers, palm top computers, network computers, wireless devices Internet appliances, or any processor-controlled device capable of executing a web browser or other type of application for interacting with the system.

Server 76 typically includes a memory 62, a secondary storage device 74, a processor 72, an input device 70, a display device 68, and an output device 66. Memory 62 may include RAM or similar types of memory, and it may store one or more applications 64 for execution by processor 72. Secondary storage device 74 may include a hard disk drive, floppy disk drive, CD-ROM drive, or other types of non-volatile data storage. Processor 72 executes the application(s), which is stored in memory 62 or secondary storage 74, or received from the Internet or other network 60. Input device 70 may include any device for entering information into server 76, such as a keyboard, mouse, cursor-control device, touch-screen, microphone, digital camera, video recorder or camcorder. Display device 68 may include any type of device for presenting visual information such as, for example, a computer monitor or flat-screen display. Output device 66 may include any type of device for presenting a hard copy of information, such as a printer, and other types of output devices include speakers or any device for providing information in audio form.

Server 76 may store a database structure in secondary storage 74, for example, for storing and maintaining information for the OSE 10. For example, it may maintain a relational, object-oriented or other type of database for storing information concerning the users. This information may include the user name,

address, email address, phone number, whether a Shipper (*e.g.*, shipper, exporter, importer, shipper's associations and non-vessel-operating-common-carriers (NVOCCs)) or Service Provider (*e.g.*, ocean carriers, agents, freight forwarders and NVOCCs), pending and expired auctions, past history (*e.g.*, feedback from other users) and other relevant information. The server may also maintain a relational, object-oriented or other type of database for storing information concerning standard shipping information, such as the Harmonized Tariff Schedule of the United States (HTSUS), container sizes and capacity, ports, shipping terms, etc.

Messages may be sent from the server 76 to user machines 37 using any known formats, including electronic mail, bulletin boards, instant messaging, on-line chat, file transfer and browsing.

Also, processor 72 may execute one or more software applications 64 in order to provide the functions described in this specification, and the processing may be implemented in software, such as software modules, for execution by computers or other machines. The processing may provide and support web pages described in this specification and otherwise for display on display devices associated with the users' computers. The term "screen" refers to any visual element or combinations of visual elements for displaying information or forms; examples include, but are not limited to, user interfaces on a display device or information displayed in web pages or in windows on a display device. The screens may be formatted, for example, as web pages in HyperText Markup Language (HTML), Extensible Markup Language (XML) or in any other suitable form for presentation on a display device depending upon applications used by users to interact with the system.

The screens include various sections, as explained below, to provide information or to receive information or commands. The screens are exemplary and it is noted that practice of the business method disclosed herein is not limited to the screens or hardware components discussed herein; additional or different screens may be used. The term "section" with respect to screens refers to a particular portion of a screen, possibly including the entire screen. Sections may be selected, for example, to enter information or commands or to retrieve information or access other screens. The selection may occur, for example, by using a cursor-control



device to "click on" or "double click on" the section; alternatively, sections may be selected by entering a series of key strokes or in other ways such as through voice commands or use of a touch screen. In addition, although the screens described below illustrate a particular arrangement and number of sections in each screen, other arrangements are possible and different numbers of sections in the screens may be used to accomplish the same or similar functions of displaying information and receiving information or commands. Also, the same section may be used for performing a number of functions, such as both displaying information and receiving a command. Likewise, more or less information may be provided on the screens.

Although only one server is shown, system 30 may use multiple servers as necessary or desired to support the users and may also use back-up or redundant servers to prevent network downtime in the event of a failure of a particular server. In addition, although machine 37 and server 76 are depicted with various components, one skilled in the art will appreciate that these machines and the server can contain additional or different components. In addition, although aspects of an implementation consistent with the present invention are described as being stored in memory, one skilled in the art will appreciate that these aspects can also be stored on or read from other types of computer program products or computer-readable media, such as secondary storage devices, including hard disks, floppy disks, or CD-ROM; a carrier wave from the Internet or other network; or other forms of RAM or ROM. The computer-readable media may include instructions for controlling a computer system, such as machine 37 and server 76, to perform a particular method.

Figure 2 illustrates a method 100 according to the present invention. The method 100 may utilize the OSE 10, and thus user machine(s) 37 and the server 76, to conduct a trading process, and therefore may use the Internet as a trading platform and communication medium. However, numerous other communication mediums (e.g., telephone) may be used to conduct the trading process. The method 100 for requesting and receiving quotations and bids for shipments and/or service contracts illustrated in Figure 2 comprises specifying shipment requirements 103,

initiating an auction 105, viewing auctions 107, selecting an auction 109, placing a bid on an auction 111 and completing an auction 113.

If conducted over the Internet, or other network, the method 100 may also comprise accessing a create-an-auction screen 101. The accessing step 101 may  
5 comprise a Shipper entering the OSE 10 by connecting to the web site 12, logging-on, navigating to a create-an-auction screen and displaying the create-an-auction screen with the web browser 42. In the present embodiment, the Shipper needs to register with the OSE 10 before being able to log-on. Exemplary create-an-auction screens are illustrated in Figures 8c-j discussed below.

The specifying shipment requirements 103 may comprise a Shipper, or other  
10 user acting on the Shipper's behalf, entering data corresponding to requirements or specifications of a one-time shipment or service contract. The specifying step 103 may be performed over a network, such as the Internet, or other communication medium (e.g., telephone, LAN, private, public, wireless, voice, fax, email, etc.).  
15 The create-an-auction screens may include sections in which a user may enter requirements/specifications for a one-time shipment or service contract. Accordingly, the specifying shipment requirements 103 may comprise the Shipper entering the requirement data into the sections or data fields in the create-an-auction screens. The data may be entered by typing, selecting from pull-down, scrolling or  
20 pop-up menus or in other manners. The create-an-auction screens illustrated in Figures 8c-j discussed below exemplify the types of data that may be entered by the Shipper.

Initiating an auction 105 comprises initiating or creating an auction based on the specified shipping requirements. When the user has completed entering the  
25 shipping requirements data, the shipping requirements data may be submitted and the auction initiated. The create-an-auction screen may include a Submit section or button that the user may select or click. Consequently, initiating an auction 105 may comprise the Shipper clicking the Submit button, which causes the shipping requirements data to be transmitted to the server 76. A request confirmation screen  
30 (e.g., see Figure 9f) may be displayed on the web browser 42 in response to the submission of the shipping requirements data. The request confirmation screen may comprise the shipping requirements data entered by the user and a submit button.

Consequently, initiating an auction 105 may further comprise reviewing the shipping requirements data and selecting the submit button on the confirmation screen. Selecting the submit button causes the shipping requirements data to be transmitted to and stored at the server 76 and the auction to be initiated. An auction detail screen 343 (see Figure 9m), comprising the stored shipping requirements data, may be created by the server 76 at this time.

Referring to Figure 2, the viewing auctions 107 comprises a Service Provider examining one or more auctions that are open for bidding so that the Service Provider may determine whether to bid one or more auctions. After the shipping requirements data is transmitted to and stored at the server 76 and an auction is initiated, the auction may be made available for bidding. Certain other users may access and view the live auction through various screens accessible through the web site 12. Consequently, referring to Figure 2, the viewing auctions 107 may comprise a Service Provider entering the OSE 10 by connecting to the web site 12, logging-on, navigating to a view all requests screen (see Figure 10b) and displaying the view all requests screen with the web browser 42. As with the Shipper, the present embodiment requires that the Service Provider register with the OSE 10 before being able to log-on. The live auctions, which include any initiated auctions that are open for bidding (*i.e.*, auctions that have not expired (the close date has not past) and for which the Shipper has not selected a bid), may be included on the view all requests screen as hypertext auction numbers or titles with associated descriptive information. The descriptive information may indicate whether the auction is for a one-time shipment or for a service contract and provide other information to enable the Service Provider to evaluate the auctions (see Figure 10b).

Selecting an auction 109 comprises the Service Provider choosing one of the live auctions, for example, in order to examine the selected auction more closely and/or to place a bid on it. Selecting the hypertext auction number or title of a live auction or entering the hypertext auction number or title in a Go To Auction section (see below) on any screen accessible by the Service Provider causes a Service Provider auction detail screen 343' (similar to the auction detail screen 343) for the selected auction to be displayed on the web browser 42 of the Service Provider's user machine 38. Accordingly, selecting an auction 109 may comprise a Service

Provider selecting the hypertext auction number or entering the auction number on the view all requests screen, or other screen, for the live auction initiated in the initiating step 103. The Service Provider auction detail screen 343' comprises information that describes the one-time shipment or service contract for which the auction is seeking bids. This information may comprise the shipping requirements data discussed above. Viewing the Service Provider auction detail screen 343' allows the Service Provider to consider the one-time shipment or service contract in order to determine whether to submit a bid on it.

Referring again to Figure 2, placing a bid on an auction 111 comprises the Service Provider placing a bid on a live auction. The live auction may be the auction that the Service Provider selected in the selecting step 109. In addition to a price, the bid may include price component acronyms, transit time, a penalty per container, a number of containers per voyage, number of voyages per month and/or whether rail is used, depending on whether the auction is for a one-time shipment or a service contract. The Service Provider auction detail screen 343' may also comprise a section(s) in which the Service Provider may enter a bid on the pending auction. Alternatively, the Service Provider auction detail screen 343' may comprise a link to bid screen on which the Service Provider may enter the bid. Consequently, placing a bid on an auction 111 may comprise the Service Provider entering the price per container or total price, the price component acronyms (which abbreviate the charges, factors, etc. that are included in the price) and the transit time for the shipment, as well as additional information as appropriate, on the auction detail screen 343' and selecting a submit button. Selecting the submit button causes the bid to be transmitted to the server 76, which may store the bid in secondary storage or other location. A confirm bid screen that shows the bid and asks the Service Provider to confirm, modify or cancel the bid may be displayed. If the bid is confirmed, the bid may be stored in secondary storage, and various screens that display bids placed on the pending auction may be updated to include the bid. In this manner, Service Providers may bid on on-time shipments or service contracts.

Completing an auction 113 may comprise the Shipper (that initiated the auction) reviewing one or more bids submitted on the auction by one or more

Service Providers and choosing or accepting one bid. A Shipper generally considers the rate or price, the price components (*e.g.*, whether the price includes the Origin-inland charge) and the transit time, among other features/limitations of the bid (*e.g.*, the brand or identity of the Service Provider) in selecting a bid. The acceptance of the bid closes the auction and creates a contract between the Shipper and the Service Provider.

One screen accessed by the Shipper that allows the Shipper to review bids placed on a live auction is the auction detail screen 343 (see Figure 9m). The auction detail screen 343 may include bids placed on the live auction and associated sections for the Shipper to indicate acceptance of each bid. The bids may include the name of the Service Provider that submitted the bid and any other information included in the bid (note: the Service Provider auction detail screen 343' preferably does not include the identities of the other bidding Service Providers (see below)). Therefore, completing an auction 113 may comprise the Shipper reviewing a bid or bids on the auction detail screen 343' and indicating acceptance of a bid utilizing the associated sections. The server 76 stores the acceptance of the bid and Shipper and Service Provider screens are updated to indicate acceptance of the bid and completion of the auction. A booking order/confirmation may be sent through the OSE 10 to the Service Provider whose bid was accepted. Final logistic details for executing the one-time shipment or the service contract may be agreed to by the Shipper and Service Provider.

The method 100 illustrated in Figure 2 and described above may include other optional features. For example, a Service Provider that is examining auctions, as in the viewing step 107 above, may want to only see auctions meeting certain criteria, for example, one-time FCL shipments, service contracts, iron-ore shipments or shipments for a specific trade route. As such, the Service Provider may want to filter the live auctions according to certain criteria. Various screens accessible to the Service Provider, therefore, may include a link to search screen(s) that include a section(s) that allows a user to specify criteria with which to filter the pending auctions. For example, there may be a search by trade route screen and a search by selected criteria screen. Similarly, the view all requests screen may include such data fields.

Consequently, the method 100 may further comprise filtering auctions 108. Filtering auctions 108 may include the Service Provider specifying, on a search screen, criteria for filtering the pending auctions. When the Service Provider submits the filtering criteria, a screen comprising only those auctions that meet the filtering criteria may be displayed. The Service Provider may save combinations of filtering criteria as profiles of interest. These profiles of interest may then be retrieved to quickly filter pending auctions later.

It is also noted that the pending auctions on the view all requests screen or the filtered requests screen may be sorted by various criteria in ascending or descending order. For example, the pending auctions may be sorted by date opened or close date. Therefore, the method 100 may further comprise sorting the live auctions 110. An advantage of filtering and sorting are that they allow a Service Provider to focus on business that is most profitable for the Service Provider or on business that best fits the Service Provider's business, business plan, model, etc.

Both Shippers and Service Providers may receive periodic updates on pending transactions. For example, Shippers may receive from the OSE 10 notification at the time they receive a new bid on their auction(s). Likewise, one or more Service Providers may receive updates anytime new auctions meeting certain criteria are initiated. Therefore, the method illustrated in Figure 2 may further comprise notifying Service Provider 115 and notifying Shipper 117, as is shown. These notifying steps 115 and 117 may comprise e-mailing or faxing to Service Provider or the Shipper with details of the new auction or new bid, as is appropriate. The notifications may be, for example, emails, faxes or both.

For example, with each new bid, the Shipper may receive an email or fax that includes the bid; the email may also include a link to the auction detail screen 343 that includes details of the bid. Likewise, when the auction closes, the Shipper may receive an email with the shipment specifications and a table of the posted bids. Further, when the Shipper accepts a bid, the Shipper may receive an email with details of the shipment specifications, the winning bid details and contact information for the winning Service Provider. Service Providers may receive emails with details and links to new auctions on a real-time basis or at certain increments per day (e.g., once per day, once an hour, etc.). Likewise, the Service

Provider may choose to receive emails for auctions meeting certain criteria (e.g., all or certain trade routes, all or certain Shippers, type of equipment, all or certain commodities, etc.). When the Service Provider wins an auction, the Service Provider may also receive emails with details of the shipment specifications and details of the bid and contact information for the Shipper. The Service Provider may also receive an email notifying when the Service Provider has been overbid or if another Service Provider's bid is accepted.

Referring to Figure 3, another feature of the present invention is the involvement of Account Managers. Account Managers may take an active market-making role in the trade process in order to enhance and expedite the bidding process. Account Managers also provide a personal point of contact to the auction participants. For example, Account Managers, acting as Account Managers for Shippers, may screen and approve auctions submitted by Shippers. The Account Manager may reject submitted auctions on a number of criteria including, for example, missing information, unready cargo, Shipper is looking for prices without definite cargo, there is no ocean segment in the shipment (if the auctions must include an ocean segment) and/or the shipment involves restricted parties and/or countries.

Likewise, Account Managers may monitor and manage Shipper initiated auctions and actively invite appropriate Service Providers to bid. In this manner, Account Managers support the OSE 10 market liquidity. Since the Shippers may be auctioning one-time transactions and service contracts, the OSE 10 market may comprise a spot market and a long-term relationships market in which the Account Manager plays the role of a market maker. The Account Manager may charge service fees from the Service Providers and/or Shippers for these services. These service fees may be calculated as commissions on completed transactions, membership fees or other types of fees.

Accordingly, Figure 3 illustrates a method 200 according to the present invention in which an Account Manager (s) takes an active market-making role. As is seen in Figure 3, the method 200 includes many steps similar to the steps of the method 100 depicted in Figure 2. The method 200 may comprise monitoring

initiated auctions 201, approving initiated auctions 202, managing a live auction 203 and/or managing closed auctions 205.

Monitoring initiated auctions 201 comprises an Account Manager monitoring auctions newly initiated by a Shipper so that the Account Manager can approve an initiated auction and decide whether to manage it. There are a number of possible reasons for an Account Manager to manage an auction. For example, Account Managers may manage auctions at their own discretion; playing an active market-making role for auctions their expertise indicates need managing. Alternatively, Account Managers may be requested to manage auctions of a particular Shipper or for all Shippers that arrange for Account Managers when they register with the OSE 10 (perhaps by paying an additional service fee). Finally, the OSE 10 may have Account Managers managing all or nearly all auctions, with individual Account Managers responsible for certain shipping routes, certain commodities or operating on a competitive basis in which each Account Managers manages as many auctions as he or she wants and is capable of managing. Therefore, the monitoring initiated auctions 201 may comprise the Account Manager(s) accessing a view all requests screen, a search by trade route screen or search by selected criteria screen and viewing a list of all pending auctions or pending auctions that meet the Account Manager's specified criteria.

The approving initiated auctions 202 comprises the Exchange Manger reviewing an auction submitted by a Shipper and approving the auction, which makes the auction open for bidding (*i.e.*, a live auction). If an Account Manager reviews an initiated auction and finds that the initiated auction does not meet certain requirements, the Account manager may disapprove or reject the auction (not shown). The Account Manager may reject submitted auctions on a number of criteria including, for example, missing information, unready cargo, Shipper is looking for prices without definite cargo, there is no ocean segment in the shipment (if the auctions must include an ocean segment) and/or the shipment involves restricted parties and/or countries. Note, auctions initiated by Shippers may also be automatically approved or automatically made available for bidding without an approval process.



After the auction is approved the Account Manager can manage the now live auction. Managing a live auction 203 may comprise the Account Manager contacting appropriate Service Providers to bid on the live auction. The Account Manager may determine appropriate Service Providers based on, for example, Service Providers' past bidding histories, the commodity being shipped, the trade route or the known availability of equipment of certain Service Providers. For example, an Account Manager may know that a certain Service Provider has space for three (3) refrigerated containers available on a Luanda, Angola to Buenos Aires, Argentina ship. The Account Manager may therefore contact that Service Provider to bid on an auction for one-time shipment of three (3) refrigerated containers of bananas from Luanda, Angola to Buenos Aires, Argentina. Such a Service Provider would likely be highly interested in bidding on this auction, as the shipment would allow the Service Provider to fill the ship. Therefore, the inviting a Service Provider to bid 203 may comprise the Account Manager contacting the Service Provider through the OSE 10 via electronic mail, telephone or other communication medium. If the Service Provider is contacted through the OSE 10, the Service Provider may have an indication of a message waiting on the Service Provider screen (see Figure 10a).

Managing a live auction 203 may include the Account Manager changing the status of the auction or adjusting the expiration of the auction. When a Shipper initiates an auction, the Shipper may specify an expiration time for the auction. The Account Manager may close the auction prior to the expiration time or shorten the auction by re-setting the auction close time, in order to better control the bidding. Alternatively, the Account Manager may extend the auction by re-setting the auction close time, thereby delaying expiration of the auction. The Account Manager may delay the auction expiration in order to facilitate the submission of additional bids. If a live auction is extended, a notification may be sent to all parties involved in the auction. An Account Manager's auction detail screens 343" may comprise a data field and a button for setting the auction close time (see Figure 12c).

If a Shipper does not accept a bid on an auction, the method may comprise closing the auction 204 at a set expiration. Furthermore, as part of managing a live

5 auction 203, an Account Manager may close an auction early. Managing a closed  
auction 205 may comprise the Account Manager re-opening an auction that has  
closed or expired. As with extending a live auction, re-opening a closed auction  
facilitates the submission of additional bids. The Account Manager may re-open an  
10 auction if the Shipper has not accepted any of the bids. If the auction has closed, it  
will not be included in any displays of live auctions; preferably, only the Shipper  
and Service Providers that placed a bid on the auction may view the closed auction.  
Re-opening the auction will cause it to be included in displays of live auctions. The  
Account Manager's auction detail screen may comprise a data field and a button for  
15 re-opening a closed auction (see Figure 12d).

20 An Account Manager may also extend an expired auction with the  
permission of the Shipper. An auction expires a set time after the auction closes  
when the Shipper does not accept a bid. For example, seventy-two (72) hours after  
a LCL or FCL auction closes or thirty (30) days after a service contract auction  
15 closes, the auction may expire. When an auction is expired, no Service Providers  
can view the auction. The Account Manager may have reason to extend the expired  
auction if he thinks that the market has changed and the bids are more likely to be  
accepted.

25 Methods according to the present invention may include steps and/or  
features beyond those described above, as is apparent from the following  
description of site maps and screens of the OSE 10. However, it is noted that the  
methods according to the present invention are not limited to the exemplary site  
maps and screens described below. The methods according to the present invention  
20 may be practiced with other web sites with different site maps and screens.

25 Figures 4-7 illustrate exemplary site maps for various users of the OSE 10.  
These site maps provide a mapping of some of the screens that various types of user  
can access through the OSE 10. It is noted that GoCargo, as it appears in this  
application, is a trademark. Most of the screens themselves are separately  
illustrated and discussed below. As is seen from these site maps, the type of user  
30 determines the screens that the user accesses in the OSE 10. Figure 4 is a site map  
for Shippers, Figure 5 is a site map for Service Providers, Figure 6 is a site map for  
NVOCCs and Figure 7 is a site map for Account Managers. All users, including

non-registered users, can access public sections of the OSE 10, including the Help 301, Rules of the Exchange 302, Contact Us 303, Register 304, Login 305 (non-registered users cannot login), About the OSE 306 and Customer Service 307 screens, as well as screens related to and/or accessible from the screens. The content and function of these screens is apparent from their names; however, it is noted that non-registered users access the Register screen 304 to register with the OSE 10 and that registered users access the Login screen 305 to logon to the OSE 10. After registering, the registered user may receive an email with a link to the Login screen 305; at the Login screen 305, the registered user may enter a user id and password to login. Figures 8a-8c illustrate exemplary Register screens for Shippers 304, Service Providers 304' and NVOCCs 304", respectively.

Referring to the Shipper site map seen in Figure 4, a registered Shipper may access a Shipper screen 308. From the Shipper screen 308, the Shipper may access the following screens: Create FCL Shipment 309, Create LCL Shipment 310, Create Service Contract 311, View In Progress 312, View Completed 313, View Booked 314, View History 315, Access Templates 316, Access Personal Profile 317 and Refer a Colleague 318. Most of these screens are discussed below. The Access Personal Profile screen 317 comprises the Shipper's personal profile that the Shipper may create during registration. The Access Personal Profile screen 317 enables the Shipper to edit the personal profile. The Shipper may also access the Industry News screen 319 and any shipping industry news articles listed therein. Not shown in Figure 4 are the auction detail screens 383 that the Shipper can access by selecting hypertext auction numbers or entering hypertext auction numbers in Go To Auction sections.

Referring to the Service Provider site map illustrated by Figure 5, a registered Service Provider may access a Service Provider screen 320. From the Service Provider screen 320, the Service Provider may access the following screens: View All Requests 321, Search By Trade Route 322, Search By Selected Criteria 323, View In Progress 324, View Bidding Closed 325, View Won 326, View History 327, Access Favorites 328, Access Personal Profile 329, Access Automatic Alerts 330 and Refer a Colleague 318. The Service Provider may also access the Industry News screen 319 and any shipping industry news articles listed therein.



screen 334 comprises auctions that have lapsed without posted bids, the View Lapsed Auctions Historic w/ Bids screen 335 comprises auctions that have lapsed with posted bids and which are past the shipping dates, the View Lapsed Auctions Historic w/o Bids screen 336 comprises auctions that have lapsed without posted bids and which are past the shipping dates, the View Cancelled Auctions screen 337 comprises a list of auctions that have been cancelled, the Rate Service Provider screen 338 comprises a screen on which the Account Manager can enter a rating for the Service Provider, the Quickbooks Export screen 339 comprises sections for selecting customer or transaction records to export to Quickbook (e.g., prior day shipments, shipments won on xx date or shipments won between mm/dd/yy and mm/dd/yy) and the User Management screen 340 comprises a screen on which the Account Manager can access user information. In addition to the public sections of the OSE 10 discussed above, the Account Manager may also access the Industry News screen 319 and any shipping industry news articles listed therein. Not shown are the auction detail screens that the Account Manager can access by selecting hypertext auction numbers.

Figures 9a-9s illustrate some of the screens that may be accessed by a Shipper. Figure 9a illustrates the Login screen 305. The Login screen 305 comprises username and password data fields in which a registered user, in this example a Shipper, enters its username and password and Ok and Cancel buttons. Selecting the Ok button will cause the entered username and password to be transmitted to the server 76. The server 76 may check an appropriate database in the secondary storage device 74 for a matching username and password. If the username and password are valid and a match is found with a registered Shipper, the server 76 directs the web browser 42 to display the Shipper screen 308.

Figure 9b illustrates the Shipper screen 308. The Shipper screen 308 comprises Shipper links 3081, tabbed links 3082, an auction activity table 3083 and a Go To Auction section 3084. The Shipper links 3081 comprise hyperlinks to various screens that the Shipper can access, some of which are illustrated in Figure 5, the Shipper site map. By selecting these hyperlinks, the Shipper can access these screens. The auction activity table 3081 comprises a list of hypertext auction numbers for the Shipper's live auctions (auctions available for bidding) and pending

auctions (auctions awaiting Account Manager approval), if any. Selecting one of the hypertext auction numbers from the auction activity table 3083 triggers the display of the auction detail screen 343 for the selected auction. It is noted that other screens accessible from the Shipper screen 308 may also include the Shipper links 3081, the tabbed links 3082 and/or the auction activity table 3083.

Figures 9c-e illustrate the Create FCL Shipment screen 309 that is used to initiate a one-time FCL shipment auction and which is accessed through the corresponding hyperlink in the Shipper links 3081 of the Shipper screen 308. Note that each Figure 9c-e illustrates different portions of the Create FCL Shipment screen 309. The Create FCL Shipment screen 309 comprises shipping requirements sections 3091 (data fields, pull-down, scrolling or pop-up menus, etc.) for entering shipping requirements data for an FCL Shipment. Accordingly, there are sections for such shipping requirements data as port of loading, in-land place of receipt (*e.g.*, city, state/province, country, zip or postal code), port of discharge, in-land place of delivery (*e.g.*, city, state/province, country, zip or postal code), date of departure, container type, temperature, flat rack dimensions, approximate weight per container and indication of weight exceeding standard road weight limits, number of containers, hazardous material indication and page, class and UN numbers if hazardous, shipper-owned container indication, terms of sale, special requirements, service provider invitation(s) for registered Service Providers, service provider request(s) for the OSE 10 to contact un-registered Service Providers, duration of the auction, comments to Account Managers and a commodity selection (indicated by Harmonic Code entered by Shipper or selected from list of Harmonic Codes and their descriptions generated from search conducted with key word(s) entered by Shipper (*e.g.*, “minerals”)).

The Create FCL Shipment screen 309 may also include a section for the Shipper to indicate a price, or range of prices that the Shipper will accept in a bid. This data is preferably only available to Account Managers. Account Managers can use this data to manage the auction. In addition to these sections, the Create FCL Shipment screen 309 comprises a Submit button 3092 that is selected to transmit the shipping requirements data to the server 76.

Referring to Figure 9c, the shipping requirement data for an auction can also be saved in the secondary storage device 74 as a template that the Shipper can recall for creating other auctions. Consequently, the Create FCL Shipment screen 309 comprises a Get Template section 3093 from which the Shipper can select a template from a pull-down, scrolling or pop-up menu or enter the template name in a data field. When the template is retrieved, the shipping requirement sections are filled with the data stored in the template. The Create FCL Shipment screen 309 may also comprise a My Booking Frequency Rating hyperlink 3094 that may be selected to view the Shipper's Booking Frequency Rating. The Booking Frequency Rating is determined by percentage of initiated auctions that a Shipper has booked (*i.e.*, accepted a bid) with Service Providers. Additionally, the Create FCL Shipment screen 309 may also comprise a VIP Number section 3095 for the Shipper to enter a VIP Number. The VIP Number is used for marketing purposes.

Figure 9f illustrates a Request Confirmation screen 341. When the Submit button 3092 is selected the Request Confirmation screen 341 may be displayed on the web browser 42. Consequently, the Request Confirmation screen 341 comprises the shipping requirements data 3411, a Submit button 3412, a Cancel button 3413 and a Modify button 3414. If the Submit button 3412 is selected, an auction according to the shipping requirements data is created, as is discussed above with regards to Figure 2. If the Cancel button is selected, the shipping requirements data is deleted and the Shipper is returned to home (*i.e.*, the Shipper screen 308 is displayed on the web browser 42). If the Modify button 3414 is selected, the Create FCL Shipment screen 309 (or Create LCL Shipment screen 310 or Create Service Contract screen 311) is re-loaded on the web browser 42, with the shipping requirement data, so that the Shipper can modify the shipping requirement data. The Request Confirmation screen 341 also may comprise a template name section 3415 in which the Shipper may enter a name for the template that may be created when the Shipper selects the Submit button 3411. If the Shipper enters a template name in the template name section 3415 the shipping requirement data may be stored in the secondary storage device 74 (or other location) under the template name. The Request Confirmation screen 341 is also displayed after the Submit

button on a Create LCL Shipment screen 310 or a Create Service Contract screen 311 is selected.

When the Shipper selects the Submit button 3411, and the auction is initiated, the web browser 42 may display the Thank You screen 342 seen in Figure 9g. The Thank You screen 342 may comprise a brief message thanking the Shipper for creating an auction, informing the Shipper of the auction number and that the pending auction will be reviewed by the Shipper's Account Manager and, if the Shipper entered a template name, that a template was successfully created. If an Account Manager reviews the pending auction and approves it, the pending auction will become a live auction and the Shipper may receive notification (*e.g.*, by email, fax, phone, message on the Shipper screen 308 etc.) of the auction's new status.

Figures 9h-i illustrate the Create LCL Shipment screen 310 that is used to initiate a one-time LCL shipment auction and which is accessed through the corresponding hyperlink in the Shipper links 3081 of the Shipper screen 308. The Create LCL Shipment screen 310 is similar to the Create FCL Shipment screen 308 and comprises many of the same sections, as seen in Figure 9f. The Create LCL Shipment screen 310 does not include shipping requirement sections for container data (*i.e.*, container type, flat rack dimensions, approx weight per container or number of containers), but instead comprises shipping requirement sections 3101 for package data: number of packages, package type, cubic volume, weight and temperature. This difference is sensible since the Create LCL Shipment screen 310 is for creating a *less-than-container* shipment auction. Otherwise, the Create LCL Shipment screen 310 is almost the same as the Create FCL Shipment screen 308 and it is used and processed in a similar manner.

Figures 9j-k illustrate the Create Service Contract screen 311 that is used to initiate a service contract auction and which is accessed through the corresponding hyperlink in the Shipper links 3081 of the Shipper screen 308. Likewise, the Create Service Contract screen 311 is similar to the Create FCL Shipment screen 308 and comprises many of the same sections, as seen in Figures 9j-k. The Create Service Contract screen 311 comprises shipping requirement sections 3111 that include a Start Date of Contract section and an End Date of Contract section. It is also noted that the Create Service Contract screen 311 comprises shipping requirement



sections 3111 for container data, since service contracts are generally for FCL shipments only. The Create Service Contract screen 311 may comprise shipping requirement sections 3111 for package data, in order to enable service contract auctions for LCL shipments, but a need for LCL services contracts is extremely rare. Otherwise, the Create Service Contract screen 311 is almost the same as the Create FCL Shipment screen 308 and it is used and processed in a similar manner.

Figure 9l illustrates the Request Confirmation screen 341 displayed after the shipping requirements data from a Create Service Contract screen 311 are submitted (e.g., a Submit button on the Create Service Contract screen 311 is selected). The Request Confirmation screen 341 displayed in Figure 9l is identical to the Request Confirmation screen 341 displayed in Figure 9f, except that the shipping requirement data displayed is for a Service Contract auction instead of a one-time FCL shipment.

Figure 9m illustrates the View In Progress screen 312, which is accessed through the corresponding hyperlink in the Shipper links 3081 of the Shipper screen 308. The View In Progress screen 312 comprises the auction activity table 3083 and a Go to auction section 3084. On the View In Progress screen 312, the auction activity table 3083 comprises a list of hypertext auction numbers for the Shipper's pending and live (in progress) auctions. The auction activity table 3083 may also comprise column headings 3085, such as Date Opened, Close Date, Ship Week, Origin, Destination, # of Ctnrs (containers) and/or # of Bids. These column headings 3085 indicate the shipping requirement data that is contained in the columns thereunder for each of the auctions in the list. The auction activity table 3083 also may comprise Sort buttons 3086 above some or all of the column headings 3085. These Sort buttons 3086 may be selected to sort, in ascending or descending order, the list of hypertext auction numbers based on the data in the column under the selected Sort button. For example, if the Sort button above the Date Opened column is selected, the list of hypertext auction numbers will be sorted in descending order based on the Date Opened of each auction. If the Sort button above the Date Opened column is selected again, the list of hypertext auction numbers will be sorted in ascending order based on the Date Opened of each auction.

Referring to Figure 9m, note that auction # 7634 in the auction activity table 3083 states "Pending Approval" under the Date Opened and Date Closed column headings. This indicates that an Account Manager is or will be reviewing the shipping requirement data for auction 7634. When the Account Manager completes reviewing the shipping requirement data for auction 7634 and approves auction # 7634, the Date Opened and Close Date for auction 7634 will be displayed. Likewise, note that auction # 7632 states "Service Contract" under the Ship Week heading. This indicates that auction # 7632 is a Service Contract auction, not a one-time shipment auction. Likewise, the "LCL" under the # of Ctnrs heading indicates that auction # 7631 is a one-time LCL shipment auction, not a one-time FCL shipment auction.

The View Completed screen 313 (not shown), View Booked screen 314 (not shown) and View History screen 315 (not shown) are similar to the View In Progress screen 312. These screens also comprise the auction activity table 3083 and the Go to auction section 3084. However, the auction activity table 3083 that is displayed in the View Completed screen 313 comprises a list of hypertext auction numbers for the Shipper's completed auctions; completed auctions are auctions which have past their close date and are closed for bidding. Likewise, the auction activity table 3083 that is displayed in the View Booked screen 314 comprises a list of hypertext auction numbers for the Shipper's booked auctions; booked auctions are auctions for which the Shipper has accepted a Service Provider's bid. Also, the auction activity table 3083 that is displayed in the View History screen 315 comprises a list of hypertext auction numbers for the Shipper's past auctions; past auctions include the Shipper's completed and booked auctions for which the ship date is in the past.

Figure 9n illustrates the auction detail screen 343 that may be displayed on the Shipper's web browser 42 when the Shipper selects a hypertext auction number or enters an auction number in the Go to auction section 3084. Auction detail screens 343 may be displayed as a separate screen or as a part of the screen (e.g., a lower portion) from which the auction number was selected or entered. The auction detail screen 343 comprises the shipping requirements data 3431 entered by the Shipper for the selected auction and a bids-placed section 3432 that includes any

bids placed on the selected auction and enables the Shipper to indicate acceptance of one of the placed bids.

The bids-placed section 3432 may comprise a bid table 3433, or other listing, of the bidding Service Provider(s) 3434, the corresponding bid(s) 3435 and other related information. The bidding Service Provider(s) 3434 may be indicated by a hypertext name or number. A bidding Service Provider's hypertext name or number may be selected to display a Service Provider rating of a Service Provider or other information about a Service Provider. The Service Provider rating, or other information about the Service Provider, may be displayed in pop-up window or similar section. The corresponding bid(s) may comprise a price (*e.g.*, price per container if a one-time FCL shipment or service contract) and price components (*e.g.*, indicated by acronym or other abbreviation). The bids-place section 3432 may also comprise a price components acronyms section 3436 (and possibly a currency acronym section) that provides the meanings of various price components. The bids may also comprise logistics information such as a transit time for the shipment and an indication of whether rail will be used for each bid. The Shipper may consider all of the information described above in selecting a bid.

Additionally, the bid table 3433 may comprise a check-circle(s) 3437, or other section, for the Shipper to indicate acceptance of a bid and a Accept Bid button to enter this acceptance and transmit the acceptance to the OSE 10 (*e.g.*, through the server 76). As stated above, the Shipper generally considers the price, the price components and the transit time, as well as some or all of the related information (including Service Provider brand and logistics), in choosing a bid.

Figure 9o illustrates a Thank-You screen 344 that may be displayed on the Shipper's web browser 42 when the Shipper accepts a bid and transmits the acceptance to the OSE 10. Figure 9p illustrates the View Booked screen 314 and the bids-placed section 3432 of an auction detail screen 343 after a bid has been accepted (after "booking"). The auction activity table 3083 comprises hypertext auction numbers for the booked auctions and related information (*e.g.*, auction opened date, booked date, shipment week (SVC if a service contract), origin, destination, number of containers (LCL if less than container) and number of bids).

Further, as seen in Figure 9p, the winning or accepted bid may be highlighted or otherwise indicated in the bids-placed section 3432.

Figure 9q illustrates a Feedback screen 344 that may be accessed by selecting the hypertext auction number of a booked auction from the auction activity table 3083 on the View History screen 315. The Feedback screen 344 allows the Shipper to provide feedback to the OSE 10 about the Service Provider's performance on a booked one-time shipment or service contract. The Feedback screen may comprise a feedback form 3441, which includes various criteria and check-circles or other section for indicating the level of satisfaction with regards to the associated criteria, and a Submit button 3442. When the Shipper completes the feedback form 3441 and selects the Submit button 3442, the feedback is transmitted to the server 76.

Figure 9r comprises a Templates screen 345, which may be accessed by selecting the corresponding Shipper link 3081. The Templates screen 345 comprises hypertext template name(s) 3451 that correspond to auction templates that have been previously saved by the Shipper and stored at the server 76. Relevant information, such as origin, destination and number of containers for each template, may also be included. Likewise, the screen may include delete check-boxes or similar sections which may be selected to delete a template. Deletion of a template will remove the template from the secondary storage device 74, or from whatever location where it was stored.

Figure 9s comprises a Refer a Colleague screen 318. The Refer a Colleague screen 318 may comprise sections for entering a colleague's email address, a return email address and a message to the colleague regarding the OSE 10, and a Submit button. When the user selects the Submit button, the message will be sent to the colleague's email address, with the return email address being listed as the sender. A link to the web site 12 may be included with the message so that the colleague may easily access the OSE 10.

Figures 10a-10m illustrate some of the screens that may be accessed by a Service Provider. Some screens accessible to a Service Provider are identical or similar to screens of the same name that are accessible to Shippers. Accordingly, these screens are not re-described below. Figure 10a illustrates the Service Provider

screen 320. The Service Provider screen 320 comprises Service Provider links 3201, tabbed links 3202, an auction activity table 3203 and a Go To Auction section 3204. The Service Provider links 3201 comprise hyperlinks to various screens that the Service Provider can access, some of which are illustrated in Figure 6, the Service Provider site map. By selecting these hyperlinks, the Service Provider can access the associated screens. Among the Service Provider links 3201 may be a link to a Favorites screen (not shown) that comprises live auctions that meet certain criteria that the Service Provider has set (*i.e.*, the Service Provider's favorite auctions) and on which the Service Provider has not yet bid.

The auction activity table 3203 may comprise a list of hypertext auction numbers for live (in progress) auctions in which the Service Provider has pending bids. The auction activity table 3203, which is similar to the auction activity table 3083, may comprise columns corresponding to various auction details, such as auction number, date opened, close date, shipment week, origin, destination, number of containers and number of bids. Likewise, as discussed above, the Service Provider can select one of the hypertext auction numbers from the auction activity table 3203 to access the Service Provider auction detail screen 383' for the selected auction. It is noted that other screens accessible from the Service Provider screen 320 may also comprise the Service Provider links 3201, the tabbed links 3202, the auction activity table 3203 and/or the Go To Auction section 3204.

Figure 10b depicts the View All Requests screen 321, which may be accessed by selecting the associated hyperlink from the Service Provider links 3201. The View All Requests screen 321 comprises an auction activity table 3203 with hypertext auction numbers for all auctions that are live (open for bidding) in the OSE 10. Since there may be many live auctions, the auction activity table 3203 may include or cover multiple pages. Accordingly, the auction activity table 3203 may further comprise a section for displaying other pages, such as hypertext numbers corresponding to each page, next arrows for moving to the succeeding or preceding page and/or a last page hypertext for moving to the last page of the auction activity table 3203. As with the auction activity table 3083 of the View In Progress 312 (see Figure 9l), the auction activity table 3203 may also comprise sortable auction detail columns. Additionally, the View All Requests screen 321

may comprise a Go To Auction section 3204. Consequently, the Service Provider may access a live auction listed on the View All Requests screen 321 by selecting a corresponding hypertext auction number in the auction activity table 3203 or by entering the corresponding auction number in the Go To Auction section 3204 or directly from an email in its mailbox.

Figure 10c comprises the Search By Trade Route screen 322, which may be accessed by selecting the associated hyperlink from the Service Provider links 3201. The Search By Trade Route screen 322 comprises a trade route section 3221 that allows the Service Provider to select a trade route with which to filter the pending auctions displayed on the View All Requests screen 321. For example, if the Service Provider selects a Transpacific Eastbound trade route (*e.g.*, because the Service Provider has an un-booked cargo ship returning from a Transpacific Westbound shipment), the View All Requests screen 321 will be displayed only with pending auctions for Transpacific Eastbound one-time shipments and if the service provider is an ocean carrier, their view may include service contracts. The trade route section 3221 may comprise a pull-down, scrolling or pop-up menu, from which the Service Provider may select or highlight the desired trade route, and a submit button which the Service Provider may select to enter the trade route selection.

Figure 10d illustrates the Search By Selected Criteria screen 323, which may be accessed by selecting the associated hyperlink from the Service Provider links 3201. The Search By Selected Criteria screen 323 comprises one or more criteria sections 3231 in which the Service Provider may specify criteria with which to filter the live auctions displayed on the View All Requests screen 321. For example, if the Service Provider specifies LCL Shipments (*e.g.*, because the Service Provider has some partially unfilled containers on numerous shipments), the View All Requests screen 321 will be displayed only with pending auctions for one-time LCL shipments. The one or more criteria sections 3231 may comprise pull-down, scrolling or pop-up menus, check-boxes, data-fields or other sections and a submit button for entering or specifying the one or more criteria with which the Service Provider desires to filter the live auctions. The one or more criteria may comprise, for example, transaction type (FCL shipments, LCL shipments or service contracts),

shipments posted within the last x days, shipments closing within the next x hours, auctions where start date/shipment departure falls between x date and y date, origin of shipment, destination of shipment, one or more trade routes, shipments of x to y number of containers, one or more container types, commodity group and/or number of bids less than x.

Figure 10e illustrates the Service Provider auction detail screen 343', which may be accessed by selecting a hypertext auction number or entering the auction number. As with the auction detail screen 343 accessed by a Shipper, the Service Provider auction detail screen 343' comprises shipping requirements data 3431 and a bids-placed section 3432 for the selected auction and a Make a Bid section 3438. Unlike the bids-placed section 3432 displayed on auction detail screens 343 to Shippers, the bids-placed section 3432 on the Service Provider auction detail screen 343' does not include the identities of the bidding Service Providers (except for the identity of the Service Provider viewing the auction detail screen 343' if that Service Provider bid on the auction). In other words, the OSE 10 keeps the bidding Service Providers' identities secret or anonymous so that other Service Providers cannot determine their bidding tendencies and the like.

Referring again to Figure 10e, the Service Provider auction detail screen 343' may also comprise Add to Favorites 3439, Shipper Booking Frequency 34310, Other Requests 34311 and Shipper Feedback 34312 hyperlinks. The Add to Favorites hyperlink 3439 may be selected to add the selected auction to the Service Provider's Favorites. If an auction is added to the Service Provider's Favorites, the Service Provider may access the added auction by selecting the Favorites hyperlink from the Service Provider links 3201 (see below). The Shipper Booking Frequency 34310 may be selected to access the Shipper Booking Frequency screen 346, which is illustrated in Figure 10f. The Shipper Booking Frequency screen 346 comprises the Shipper's (*i.e.*, the Shipper that initiated the selected auction) booking frequency rating, which may be based on the number of shipments booked compared to the total number of auctions initiated by that Shipper. The Shipper's booking frequency rating may be indicated as being either New (not rated), Low, Medium or High. The Other Requests hyperlink 34311 is selected to access a View All Requests screen 321 comprising all of the Shipper's open auctions. The Shipper Feedback

hyperlink 34312 may be selected to access feedback from the Shipper regarding the Service Provider.

Referring to Figure 10e, the Make a Bid section 3438 allows the Service Provider to submit a bid on the selected auction. The Make a Bid section 3438 may comprise data fields, pull-down, scrolling or pop-up menus, check-boxes, check-circles, a Submit button and/or other sections for entering the price (e.g., total price or price per container), currency, price components, transit time and indicating whether rail is used or not. For example, for the LCL shipment illustrated in Figure 10e, the Service Provider may enter a total price in a data field, select the currency from a pull-down menu, check the price component(s) (e.g., Ocean Freight Charge) indicating what the price includes, enter a transit time in a data field, indicate no rail in a check-circle and select the Submit button. This will cause the Service Provider's bid to be transmitted to the server 76, stored in the secondary storage device 74 (or other location), and added to the bids-placed section 3432 of the auction detail screens 343 and 343' corresponding to the selected auction. If a confirmation screen is displayed, the bid may not be transmitted until the bid is confirmed by selecting a Submit button on the confirmation screen.

Figure 10f illustrates a shipper booking frequency section 34315 superimposed on the auction detail screen 343'. The shipper booking frequency section 34315 provides the booking frequency, as expressed from a range of new, low, medium or high, of the shipper that initiated the auction shown in the auction detail screen 343'.

Figure 10g illustrates the Make a Bid section 3438 of an auction detail screen 343' for a service contract. In comparison to the Make a Bid section 3438 for a LCL shipment seen in Figure 10e, it is noted that the Make a Bid section 3438 in Figure 10g also comprises data fields or sections for penalty per container, minimum number of containers per voyage and number of voyages per month. Service Contracts generally require a minimum number of containers per voyage and specify a number of voyages per month. The penalty per container, if any, is the penalty the Service Provider will charge if the minimum number is not met. Furthermore, the data field or section for price requests Price per container as opposed to Total Price. It is noted that the Make a Bid section 3438 illustrated in



Figure 10g has been filled out and is a complete bid awaiting submittal to the server 76.

When a bid entered in the Make a Bid section 3438 of an auction detail screen 343' is submitted, a Bid Confirmation screen 347 is displayed on the Service Provider's web browser 42, as seen in Figure 10h. The Bid Confirmation screen 347 comprises the Service Provider's bid 3471, including price, price components, and other appropriate related information, such as Penalty per container, Number of containers per voyage, Number of voyages per month, Transit Time in Days and whether Rail is used or not. Certain types of information, such as penalty per container, number of containers per voyage and number of voyages per month, are irrelevant to certain auctions (*e.g.*, for LCL or FCL shipment auctions). The Bid Confirmation screen may further comprise a Submit button 3472 to confirm the bid and a Modify this bid hyperlink 3473 to re-access the Make a Bid section 3438 of the auction detail screen 343' in order to modify the bid. Figure 10i illustrates a Thank You screen 348 displayed on the Service Provider's web browser 42 when the bid is submitted to server 76.

The Service Provider may select a View Won hyperlink from the Service Provider links 3201 in order to access the View Won screen 325. The View Won screen 325 (not shown) comprises an auction activity table 3203 that includes the hypertext auction numbers for auctions in which a Shipper accepted the Service Provider's bid. If the Service Provider selects a hypertext auction number from the auction activity table 3203 (or enters the auction number in a Go To Auction section), the auction detail screen 343' for the selected won auction is displayed on the Service Provider's web browser 42, as illustrated in Figure 10j. As seen in Figure 10j, the auction detail screen 343' comprises the bids-placed section 3432 in which the Service Provider's winning bid is highlighted or otherwise indicated. In the example shown in Figure 10j, the Service Provider's winning bid had the same price as one of the losing bids (*i.e.*, 2100 USD per container). However, the Service Provider's winning bid included a shorter transit time (*i.e.*, 29 days vs. 34 days) and more voyages per month.

The View History screen 326 (not shown), accessible from the corresponding hyperlink of the Service Provider links 3201, comprises an auction

activity table 3203 that includes hypertext auction numbers for auctions that the Service Provider won and has completed performance on the associated one-time shipment or service contract. The auction detail screens 343', which are accessible by selecting the hypertext auction numbers of these auctions, includes a Shipper Feedback hyperlink 34312. Figure 10k illustrates a Shipper Feedback screen 349 that may be accessed by selecting the Shipper Feedback hyperlink 34312. The Shipper Feedback screen 349 comprises the Shipper's rating of the Service Provider's performance on the associated one-time shipment or service contract. An email requesting Feedback from the Shipper may be automatically sent to the Shipper after a shipment is completed.

Figure 10l illustrates the Access Favorites screen 327 that may be accessed by selecting the corresponding hyperlink of the Service Provider links 3201. The Access Favorites screen 327 comprises an auction activity table 3203 that includes hypertext auction numbers for auctions that the Service Provider has added to the Service Provider's Favorites (see above). The Access Favorites screen 327 may also comprise a delete section 3271 that may be selected to delete a hypertext auction number from the auction activity table.

Figure 10m illustrates the Access Automatic Alerts screen 330 that may be accessed by selecting the corresponding hyperlink of the Service Provider links 3201. The Access Automatic Alerts screen 330 allows the Service Provider to set-up one or more criteria that trigger alerts, via email, fax, etc., of newly initiated auctions. The Access Automatic Alerts screen 330, therefore, may comprise a criteria section 3301 with which the Service Provider may select one or more criteria that are used to filter newly initiated auctions, a frequency section 3302 with which the Service Provider may select the frequency of the alerts and a method section 3303 with which the Service Provider may select the method for the OSE 10 to communicate the alert (e.g., via fax or email). Each of these sections may comprise pull-down, scrolling or pop-up menus, check-boxes or check-circles, data fields or other sections. For example, the Service Provider may select All Trade Routes, All Commodity Groups and All Container Types as the criteria, a frequency of sending a separate message for every new shipment matching my selected criteria and a method of email. Any initiated auction for any trade route, any commodity

group and any container type will trigger a separate email message, sent by the server 76 to the Service Provider's user machine 38. Alternatively, if the Service Provider were to select Transpacific Westbound, the server 76 will send a separate email message only for every initiated auction for a Transpacific Westbound shipment or service contract.

As noted above, with reference to Figure 6, an NVOCC member of the OSE 10 can access screens accessible to Shippers and Service Providers. From the Shipper screens, the NVOCC member may access all screens relating to service contracts. Likewise, the NVOCC member may access all Service Provider screens not relating to service contracts. The NVOCC member, however, may not create a one-time FCL or LCL shipment auction. Therefore, the NVOCC member may not access the Create FCL Shipment screen 309 or Create LCL Shipment screen 310. Accordingly, as illustrated in Figure 11, the Shipper Links 3081' of the Shipper screen 308' and other screens accessed by the NVOCC member from the Shipper screen 308' (*i.e.*, the Create Service Contract screen 311, View In Progress screen 312, View Completed screen 313, etc.) do not include hyperlinks corresponding to the Create FCL Shipment screen 309 or Create LCL Shipment screen 310. The Shipper Links 3081' do include a hyperlink corresponding to the Create Service Contract screen 311. Otherwise, as seen in Figure 11, the Shipper Links 3081' and the other portions of the screens accessed from the Shipper screen 308' by the NVOCC member are the same as those accessed by a Shipper. Similarly, the Service Provider screen 320 and the screens accessed by the NVOCC member from the Service Provider screen 320 are the same as those accessed by a Service Provider.

Figures 12a-12e illustrate some of the screens that may be accessed by an Account Manager. As noted above, a registered Account Manager can access the Service Provider screen 320', and the screens accessible from the Service Provider screen 320', after logging-on to the OSE 10. Furthermore, the Account Manager may access a number of additional screens, as discussed above. As illustrated in Figure 12a, the Service Provider screen 320', and the screens accessible from the Service Provider screen 320', when accessed by the Account Manager comprise Account Manager links 3205 in addition to at least some of the Service Provider

links 3201. The Account Manager links 3205 comprise hyperlinks to the screens accessible only to the Account Manager, as illustrated in Figure 7 above, from the Service Provider screen 320. For example, the Account Manager links 3205 may comprise hyperlinks to the View Pending Approval screen 332, the View Lapsed Auctions w/Bids screen 333, the View Lapsed Auctions w/o Bids screen 334, the View Lapsed Auctions Historic w/ Bids screen 335, the View Lapsed Auctions Historic w/o Bids screen 336, the View Cancelled Auctions screen 337, the Rate Service Provider screen 338, the Quickbooks Export screen 339 and the User Management screen 340.

Figure 12b depicts the View Pending Approval screen 332, that may be accessed by selecting the corresponding hyperlink of the Account Manager links 3205, and a portion of an Account Manager auction detail screen 343'' for a pending approval auction. The View Pending Approval screen 332 may comprise an auction activity table 3203 that includes hypertext auction numbers for auctions that have been submitted by a Shipper and which are awaiting the Account Manager's approval. The Account Manager may select the hypertext auction number of a pending approval auction, review the shipping requirements data displayed on the auction detail screen 343'' of the selected auction and select a Submit button 3321 or a Cancel button 3322 on the auction detail screen 343'' or View Pending Approval screen 332 to indicate approval or disapproval of the auction. As seen in Figure 12b, the auction detail screen 343'' or View Pending Approval screen 332 may comprise a Shipper Booking Frequency link 3323 and an Other Requests from this Shipper link 3324 which the Account Manager may select to view the Shipper's booking frequency or other requests (auctions). The Account Manager may disapprove of an auction based on the Shipper's booking frequency or because the auction is similar to other auctions that the Shipper has submitted. Likewise, the Account Manager may disapprove of an auction because the shipping requirements data is missing a necessary component. Under these circumstances, the Account Manager is acting as an Account Manager for the Shipper. When and if the Account Manager approves the auction and selects the Submit button, the auction will be included on the View All Requests screen 321 with its open and close dates listed.

The View Pending Approval screen 332 or the auction detail screen 343'' of a pending approval auction may include a section (not shown) for the Account Manager to set a close date for the auction that is earlier than the auction expiration date set by the Shipper. As noted above, this allows the Account Manager to better control the auction.

Figure 12c illustrates a bottom portion of an auction detail screen 343'' accessed by an Account Manager selecting a hypertext auction number from the auction activity table 3203 on the View In Progress screen 324. The bids-placed section 3432 shown comprises an Extend Auction section 34313 that enables the Account Manager to extend the pending auction beyond the close date. The Extend Auction section 34313 may include a data field for entering a new close date and an Extend Auction button for submitting the new close date. When the Account Manager selects the Extend Auction button, the selected auction's Close Date will be changed accordingly on the View All Requests screen 321 and View In Progress screen 324.

Figure 12d illustrates a bottom portion of an auction detail screen 343'' accessed by an Account Manager selecting a hypertext auction number from the auction activity table 3203 on the View Closed screen 325. The bids-placed section 3432 shown comprises a Reopen Auction section 34314 and a Delay Expiration section 34315. The Reopen Auction section 34314 enables the Account Manager to reopen an auction that has closed (*i.e.*, it has past the Close Date). Likewise, the Delay Expiration section 34315 enables the Account Manager to delay expiration of an auction by extending the auction expiration date. If an auction is reopened, it will be re-listed on the View All Requests screen 321 and View In Progress screen 324.

Figure 12e illustrates a bottom portion of an auction detail screen 343'' accessed by an Account Manager selecting a hypertext auction number from the auction activity table 3203 on the View Won screen 326 or View History screen 327. The bottom portion includes the bids-placed section 3432, which comprises the bids placed on the selected auction, with highlighting or other indication of the winning bid. As seen from Figure 12e, and unlike the bids-placed section 3432 of auction detail screens 343' accessed by Service Providers, the bids-placed section

3432 of an auction detail screen 343'' accessed by the Account Manager does include the identities of the Service Provider's that placed bids. In other words, the identities of the Service Providers bidding are not kept anonymous from the Account Manager. The other screens accessible to the Account Manager, including the View Lapsed Auctions w/Bids screen 333, the View Lapsed Auctions w/o Bids screen 334, the View Lapsed Auctions Historic w/ Bids screen 335, the View Lapsed Auctions Historic w/o Bids screen 336 and the View Cancelled Auctions screen 337 (all not shown), also provide access through hypertext auction numbers to auction details screens 343'' that include the identities of bidding Service Providers.

It is again noted that the above-described screens are exemplary and are not meant to limit the scope of the method or system of the present invention. For example, the present invention also encompasses split screens that include an auction activity table and details of a selected auction from the auction activity table.

It is also noted that the invention comprises a notification system that is described in various sections above. The notification system may send notices via numerous communication mediums, such as email, fax, phone and screens (*e.g.*, messages on a member's Shipper screen or Service Provider screen). The notices may comprise real-time, hourly, daily, etc. messages to Service Providers alerting them to newly pending auctions that meet criteria they have set to trigger notification. The messages may include direct links to the auction(s) that are the subject of the notice. These links allow the Service Provider to directly access the auction detail screen of the linked auctions. Accordingly, these links provide for a quicker, direct access than navigating to the auction through a web browser.

While the present invention has been described in connection with an exemplary embodiment, it will be understood that many modifications will be readily apparent to those skilled in the art, and this application is intended to cover any adaptations or variations thereof. For example, different screens, screen sections, hardware and methods may be used without departing from the scope of the invention. This invention should be limited only by the claims and equivalents thereof.